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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,038	05/23/2000	Mark Sean Hefty	219.38022X00	4371

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EXAMINER

NGUYEN, THANH T

ART UNIT PAPER NUMBER

2144

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/576,038	Applicant(s) HEFTY ET AL.	
	Examiner Tammy T. Nguyen	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on December 5, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |



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Detailed Office Action

1. Claims 1-31 are cancelled.
2. Claims 32-55 are newly added.
3. Claims 32-55 are presented for re-examination.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 32-55 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Beshai et al., (USPN 6,721,271 – Date of Patent: April 13, 2004, herein referred to as “Beshai”).
6. As to claim 32, Beshai teaches the invention as claimed, including a method comprising:
if an amount of data located in a first memory buffer does not exceed a maximum transfer capacity of a system in which the data is to be transferred: associating the data with a first

transfer operation (see col.14, line 65 to col.15, line 28); and if the amount of data associated with the first transfer operation has not reached the maximum transfer capacity, associating: data located in one or more portions of one or more other memory buffers with the first transfer operation (see col.18, lines 9-35).

7. As to claim 33, Beshai teaches the invention as claimed, additionally comprising transferring the data associated with the first transfer operation (see abstract).
8. As to claim 34, Beshai teaches the invention as claimed, additionally comprising associating a descriptor with the first transfer operation (see col. 10, lines 48-65).
9. As to claim 35, Beshai teaches the invention as claimed, additionally comprising associating data with one or more subsequent transfer operations (see col. 17, lines 18-51).
10. As to claim 36, Beshai teaches the invention as claimed, wherein the first and one or more subsequent transfer operations are performed in response to one or more RDMA (Remote Direct Memory Access) requests (see fig.16 memory 0).
11. As to claim 37, Beshai teaches the invention as claimed, additionally comprising: if the amount of data located in the first memory buffer exceeds the maximum transfer Opacity: associating a portion of the data with the first transfer operation: and associating one or more subsequent portions of the data with one or more subsequent transfer operations (see col.17, lines1-67).
12. As to claim 38, Beshai teaches the invention as claimed, additionally comprising: associating a descriptor with the first transfer operation; and transferring the data associated with the first transfer operation (see abstract).

13. As to claim 39, Beshai teaches the invention as claimed, additionally comprising:
associating a descriptor with each of the one or more subsequent transfer operations; and
transferring the data associated with the one or more subsequent transfer operations (see col.17, lines 1-67).
14. As to claim 40, Beshai teaches the invention as claimed, including an apparatus comprising: an RDMA (remote direct memory access) manager operable to service one or more RDMA requests (see Fig.1), and to: determine if an amount of data located in a first memory buffer exceeds a maximum transfer capacity of a system in which the data is to be transferred, and: if it is determined that the amount of data located in a first memory buffer does not exceed the maximum transfer capacity, then associate the data with a first transfer operation (see col.14, line 65 to col.15, line 28); and if the amount of data associated with the first transfer operation has not reached the maximum transfer capacity, associate data located in one or more portions of one or more other memory buffers with the first transfer operation (see col.18, lines 9-35).
15. As to claim 41, Beshai teaches the invention as claimed, the RDMA manager additionally operable to transfer the data associated with the first transfer operation (see abstract).
16. As to claim 42, Beshai teaches the invention as claimed, the RDMA manager additionally operable to associate data with one or more subsequent transfer operations (see col.17, lines 1-67).
17. As to claim 43, Beshai teaches the invention as claimed, the RDMA manager additionally operable to: determine if the amount of data located in the first memory buffer exceeds the maximum transfer capacity, and: if the amount of data located in the first memory

buffer exceeds the maximum transfer capacity: associate a portion of the data with the first transfer operation; and associate one or more subsequent, portions of the data with one or more subsequent transfer operations (see fig.17).

18. Claim 48 has similar limitations as claim 32; therefore, it is rejected under the same rationale.

19. Claim 53 has similar limitations as claim 43; therefore, it is rejected under the same rationale.

20. Claims 49-52 have similar limitations as claims 33-36; therefore, they are rejected under the same rationale.

21. Claims 54, and 55 have similar limitations as claims 38, and 39; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beshai et al., (hereinafter Beshai) U.S. Patent No. 6,721,271 in view of Mauger et al., (hereinafter Mauger) U.S. Patent No. 6,917,586.

24. As to claim 44, Beshai teaches the invention as claimed, including a system comprising: a host fabric adapter; and an RDMA (remote direct memory access) manager included in a software stack of the host fabric adapter, the RDMA manager operable to service one or more RDMA requests (see fig.16), and to: determine if an amount of data located in a first memory buffer exceeds a maximum transfer capacity of a system in which the data is to be transferred (see col.12, lines 27-40), and; if it is determined that the amount of data located in the first memory buffer does not exceed the maximum transfer capacity, then associate the data with a first transfer operation (see col.14, line 65 to col.15, line 28.); and if the amount of data associated with the first transfer operation has not reached the maximum transfer capacity, associate data located in one or more portions of one or more other memory buffers of the plurality of memory buffers with the first transfer operation (see col.18, lines 9-35, and col.13, lines 9-17). But Beshai does not explicitly teach fabric adapter. However, Mauger teaches fabric adapter (fig.3)(see 8, line 58 to col.9, line 35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Mauger into the computer system of Beshai to have fabric adapter because it would have an efficient system that can provide specific functions that enable any-server-to-any-storage device connectivity through the use of Fibre Channel switching technology.

25. Claim 45 has similar limitations as claim 41; therefore, it is rejected under the same rationale.

26. Claim 46 has similar limitations as claim 42; therefore, it is rejected under the same rationale.

27. Claim 47 has similar limitations as claim 43; therefore, it is rejected under the same rationale.

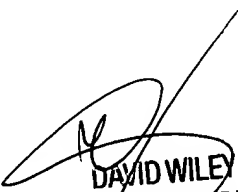
Conclusion

28. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(571) 272-3929**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, David Wiley, may be reached at **(571) 272-3923**.

TTN

February 15, 2006


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100